

REMARKS

In view of the preceding amendments and the comments which follow, and pursuant to 37 C.F.R. § 1.111, amendment and reconsideration of the Official Action of October 26, 2004 is respectfully requested by Applicants.

Summary

Claims 1 – 6, 15 and 17 – 26 stand rejected. Claim 1 has been amended. No new matter has been introduced as a result of these claim amendments. Claims 1 – 6, 15 and 17 – 26 are pending following entry of these amendments and remarks.

Claim Rejections under 35 U.S.C. § 102

The Examiner has rejected Claims 1 – 6, 15 and 17 – 26 under 35 U.S.C. § 102 (b) as being anticipated by Hasegawa et al. (Hasegawa) (JP 2000-031562). Applicants respectfully traverse these rejections, and have amended Claim 1, to remove any ambiguities that may have been the basis for these rejections.

Claim 1 is directed to a spin-valve thin-film magnetic element, which includes an antiferromagnetic layer, a pinned magnetic layer, a nonmagnetic conductive layer, a free magnetic layer, an exchange bias layer, a pair of electrodes and a mean-free-path-extending layer. Further, as amended, Claim 1 now recites that “the mean-free-path-extending layer is positioned on a side of the free magnetic layer remote from the pinned magnetic layer.”

Applicants submit that Hasegawa fails to disclose all of the recited elements of Claim 1. Hasegawa discloses a free magnetic layer, a pinned magnetic layer, and an antiferromagnetic layer, but fails to disclose an exchange bias layer and a mean-free-path extending layer. The Examiner states that in Hasegawa the non-magnetic layer corresponds to the mean-free-path-extending layer, and that the antiferromagnetic layer corresponds to the exchange bias layer. However, Applicants wish to point out that in Hasegawa the nonmagnetic layer is on the same side with the pinned magnetic layer when viewed from the free magnetic layer, in contrast to the claimed position of the mean-free-path-extending layer. Similarly, the claimed exchange bias layer is

positioned on the other side of the free magnetic layer with respect to the antiferromagnetic layer.

Hence, Applicants submit that this claimed structure is not anticipated by the Hasegawa, and thus that Claim is allowable. Claims 2 – 6, 15 and 17 – 26 are also allowable since dependent, either directly or indirectly, on Claim 1. Accordingly, Applicants respectfully request that the rejections under 102(b) of Claim 1 – 6, 15 and 17 – 26 be withdrawn.

Claim Rejections under 35 U.S.C. § 103

Pursuant to 37 CFR 1.56, Applicants point out that all of the subject matters set forth in the claims of this application were invented by Hasegawa, Kakihara and Honda on May 6, 1999.

The Examiner has next rejected Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa et al (Hasegawa) in view of Gurney et al. (Gurney) (US 5,422,571).

In regard to Claim 6, since Hasegawa failed to anticipate Claims 1 – 5 from which Claim 6 is dependent, then Claim 6 is patentable over Hasegawa in view of Gurney. Accordingly, Applicants respectfully request that the 103 rejection of Claim 6 be withdrawn.

Conclusion

Applicants submit that this application is now in condition for allowance, and favorable reconsideration of this application. If, there are any fees due, Applicants request that this paper constitutes any necessary petition and authorizes the Commissioner to charge any underpayment, or credit any overpayment, to Deposit Account No. 23-1925.

If the examiner finds that there are any outstanding issues which may be resolved by a telephone interview, the Examiner is invited to contact the undersigned at the below listed number

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